

Real Estate Strategic Plan

Ted Eliopoulos

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I. Executive Summary

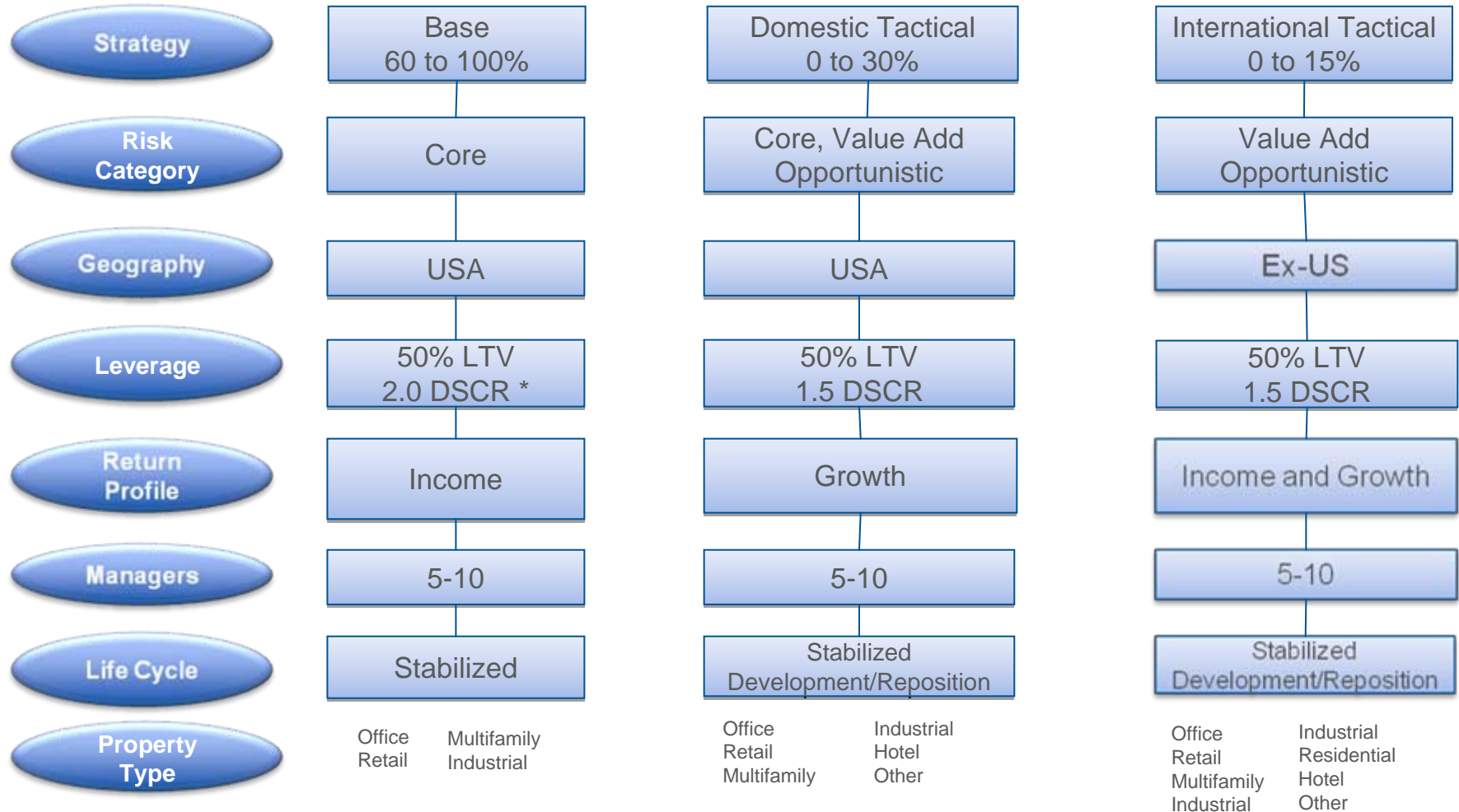
- Real Estate Policy requires a new Strategic Plan at a minimum every five years
- Current Real Estate Strategic Plan adopted by IC in September 2007
- The 2010 Asset Liability Management Review defined a new role for Real Estate:
 1. Low correlation to Equities
 2. Stable cash yields
 3. Partial inflation hedge



Executive Summary – 2011 Strategic Plan Recommendations

1. Invest in private Real Estate equity
2. Focus majority of portfolio on United States
3. Implement new role of Real Estate by splitting program into Legacy Portfolio and New Portfolio
4. Organize New Portfolio into three sub portfolios
 - Base
 - Domestic Tactical
 - International Tactical
5. Reduce overall risk profile by requiring a minimum of 75% of the portfolio to be Core
6. Utilize moderate leverage across the portfolio, with emphasis on Debt Service Coverage Ratio as well as Loan to Value Ratio
7. Utilize separate account structure as primary business model
8. Replace existing benchmark (An Investment Committee agenda item on all benchmarks is planned for March)

Executive Summary – New Portfolio Structure



* Debt Service Coverage Ratio

II. Role of Real Estate

2010 Asset Liability Management Review (ALM) prescribed a specific role for Real Estate

Old Role (from 2007 Strategic Plan)

1. Total Return Enhancer
2. Diversifier

New Role

1. Low Correlation to Equities
2. Stable Cash Yields
3. Partial Inflation Hedge

Real Estate is expected to generate a 7.0% after fee return with a standard deviation of 14.0%.

"Since the equity allocation in the CalPERS portfolio is high and the risk contribution from equities is even higher the role of Real Estate in the CalPERS portfolio should be stable income oriented, moderately levered, low risk, and low correlation with equities. Hence this role would be to have ownership risk in real property with stable cash yields. The major driver is income, of which the majority is cash yield. Real Estate is also a partial inflation hedge."

Source: Role of Asset Classes, ALM Workshop

Role of Real Estate – Practical Results

- Continued emphasis on private real estate equity
 - Private real estate has a lower correlation to equities than public real estate
- More emphasis on income
 - Fewer development projects
 - More stabilized cash flowing assets
 - Greater attention on monitoring and reporting cash yields
 - Current benchmark does not report cash yields
- Stable cash yields requires a stable portfolio size
 - Cash yields will need to be stable in terms of total amount as well as percentages
 - This requires a plan to predictably grow the portfolio
- Less leverage
 - Extensive use of leverage can increase volatility of income returns as well as total return

III. Investment Strategy

Geographic Focus

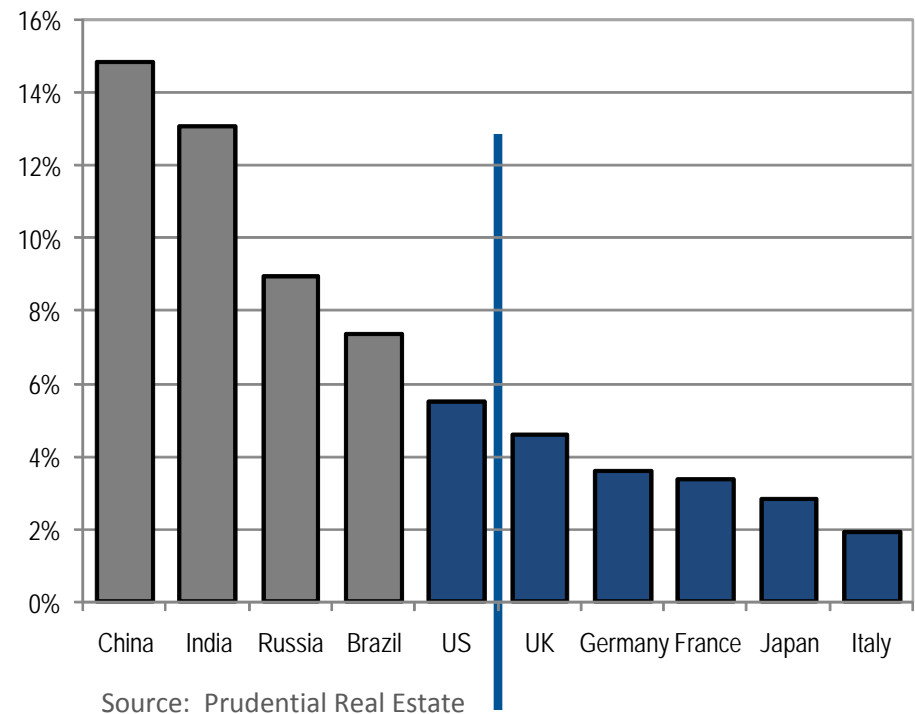
- Developed Countries ex-United States are generally forecasted to have low economic growth rates.
- Despite the lower growth rates, yields for real estate are generally lower in Western Europe and Japan.
- United States has less risk with respect to currencies, taxes, and political climate.

Recommendations:

- 1) Focus majority of portfolio on United States.
- 2) For small percentage of portfolio, focus on growth markets with limited exposure to Western Europe and Japan.

GDP Growth in Select Countries, 2009-2019

Annualized Growth of Nominal GDP in US Dollars, 2009-2019



Investment Strategy – Structure Overview

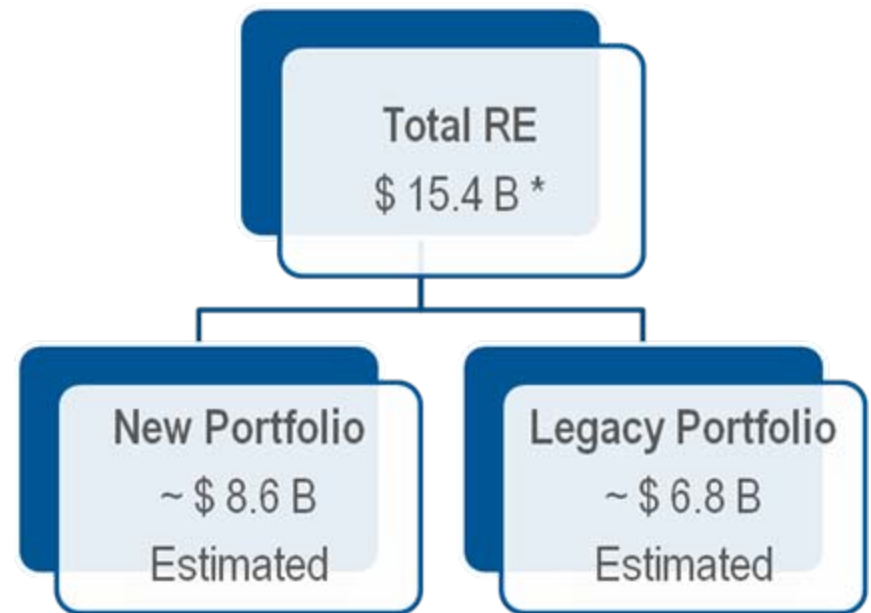
Recommendation: To complete new role of Real Estate, split the program between a Legacy Portfolio and a New Portfolio

Legacy Portfolio – Assets which do not fit the new role of Real Estate

- Will continue to be active and time consuming
- Objective is optimization of returns

New Portfolio – A portfolio that achieves the new role for Real Estate. Completing this new role requires a new direction

- Some existing assets meet new role
- Need to shift organization, managers and systems to new role
- Balance of this section addresses structure of New Portfolio

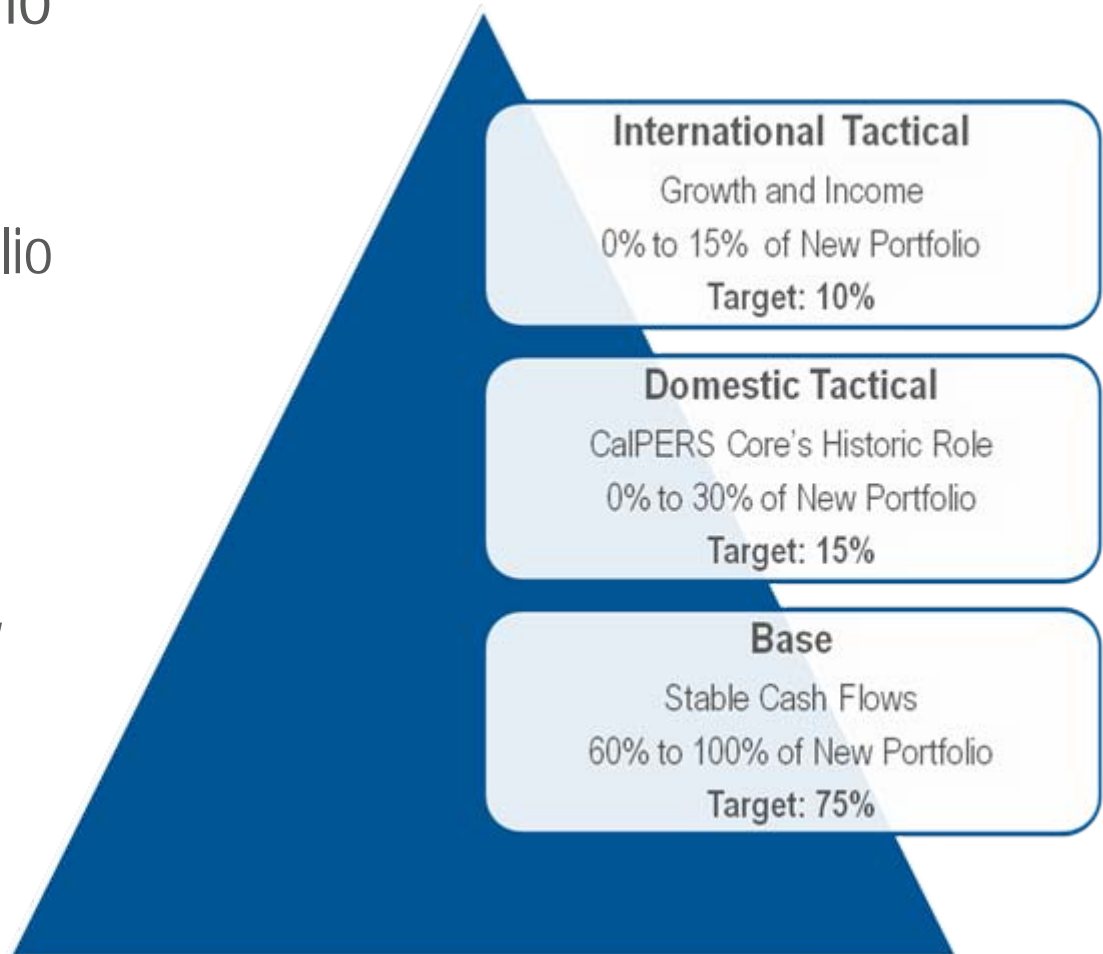


* As of June 30, 2010

Investment Strategy Structure – New Portfolio

Recommendations

- 1) Organize the New Portfolio into three sub portfolios
- 2) Allow ranges of sub portfolio sizes as a percentage of the New Portfolio



Investment Strategy – Structure

Base Portfolio

Objective: Long term portfolio structure to produce predictable cash flows

Size: Tracks the total CalPERS portfolio in terms of size

Strategy:

- High quality assets in high quality locations held for long term
- Accountable for delivering cash flows to system
- Larger relationships = lower management cost
- Portfolio wide cost reduction strategies including a market leading environmental sustainability program
- Hold Period: 10 to 20 yrs

Geographic: United States Primary Markets

Incentive Program: Incentive fee based on growing NOI & Cash

Risk Profile: Core

Partners: Target five to ten partners

Domestic Tactical

Objective: Extension of existing Core Program Income and Appreciation components

Size: Varies with market opportunities

Strategies: Repositioning, Distressed Situations and Development

Geographic: United States

Risk Profile: Core, Value Add and Opportunistic

Partners: Target five to ten partners. Evaluate addition of a Emerging Manager Program

International Tactical

Objective: Generate alpha by capitalizing on growth in Emerging markets

Size: Varies with market opportunities

Strategies: Development and Stabilized Assets

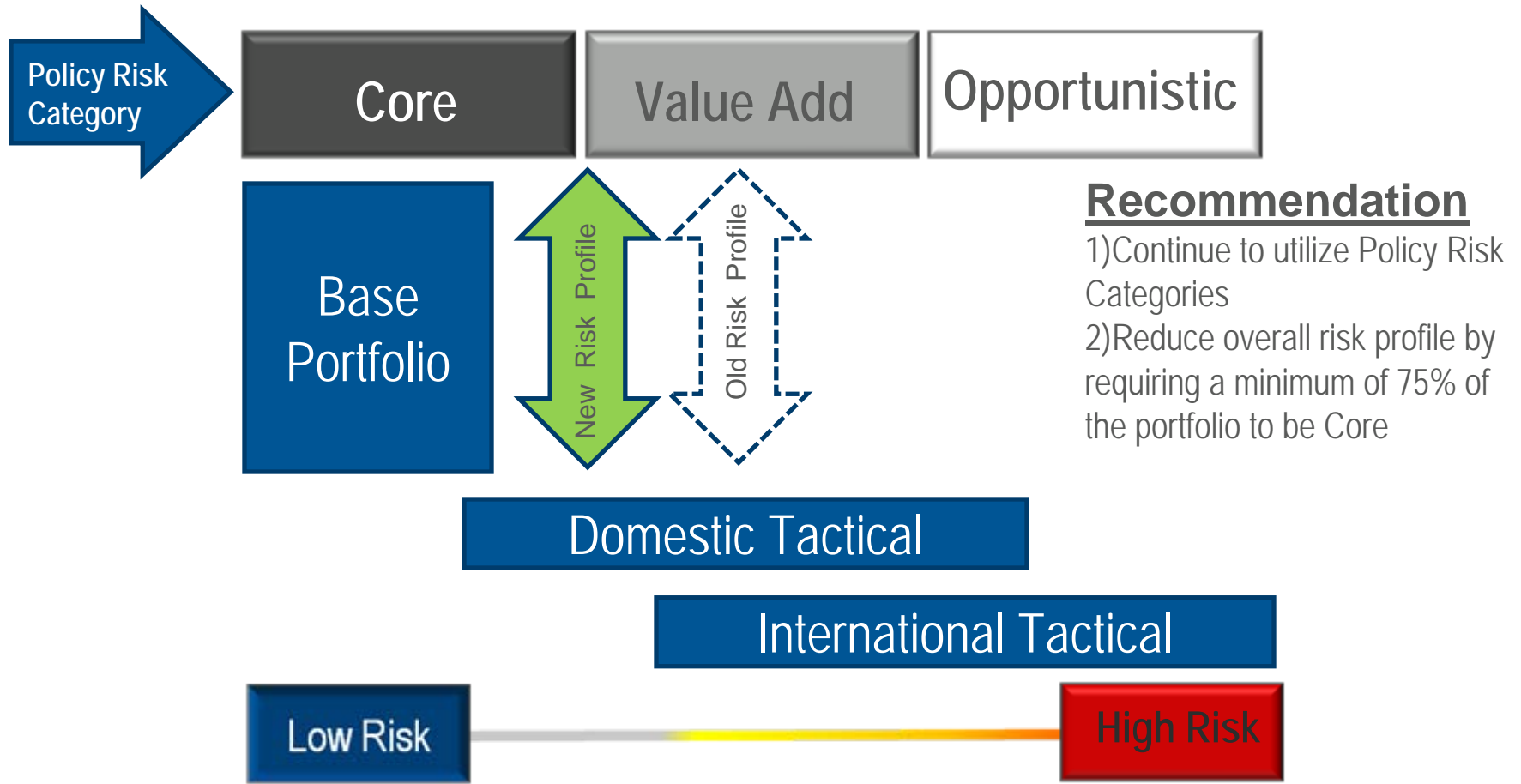
Geographic: Ex-US / Emerging Markets

Risk Profile: Value Add and Opportunistic

Partners: Target five to ten partners

Investment Strategy

Risk Profile



Investment Strategy

Risk Profile

Current

Asset Risk Class.	Policy Range	LTV Limit	DSCR* Minimum
Core	20-80%	45%	1.50
Value-Add	10-60%	65%	N/A
Opport.	10-40%	75%	N/A
Total Portfolio		60%	N/A

Proposed

Asset Risk Class.	Policy Range	LTV Limit	DSCR* Minimum
Core	75-100%	50%	2.00
Value-Add	10-25%	50%	N/A
Opport.	0-15%	50%	N/A
Total Portfolio		50%	1.50

* Debt Service Coverage Ratio

Investment Strategy

Leverage

Current industry practices

- The highest leverage on the highest risk assets
- Manager track records are reported on a leveraged basis
- High proportion of returns the result of leverage

Recommendations

- Moderate leverage across the portfolio
- Utilize Debt Service Coverage Ratio (DSCR) as a risk metric in addition to Loan to Value
 - Debt Service Coverage Ratio = $\text{Income before Debt Service} / \text{Debt Service}$
 - Measures a portfolio's ability to cover its debt with net rents
 - Emphasize cash flows as opposed to valuations
- Maintain current policy limit on subscription financing and recourse debt (10% of Net Asset Value)

Investment Strategy – Business Model

Recommendations

- **Separate Accounts**
 - With a balance of moderate fees, alignment, and control, should be the primary structure used
 - Allows Staff to leverage limited resources
 - Staff has extensive experience with structure
- **Operating Companies**
 - May be added as opportunities arise
 - If properly structured, have good control and good alignment
- **Funds**
 - Open Ended Funds and “Club Funds”* may be utilized if there is a reasonable method of exit and reasonable fees
 - Consistent with current practice Commingled Funds to be utilized only when other structures are not available

Principles

1. Control

- Right to: exit, terminate, force sales: approve financings
- Limited Discretion: Discretion in the box concept

2. Alignment of Interest

- Meaningful co-investment
- Dedicated Team

3. Management Fees

- Reasonable fee load (gross to net)
- Incentives to focus on objectives

IV. Benchmark

Recommendation: Replace existing real estate benchmark

- Current Benchmark: 200 basis points over NPI (90%) and FTSE EPRA NAREIT Global Real Estate (10%)
- Proposed Benchmark: NCREIF Fund Index
 - Open End Diversified Core Equity (ODCE)

Attributes of ODCE as proposed benchmark

- Open end funds with \$73 billion of assets
- Before fee returns and after fee returns are reported
- Moderate leverage (currently 33% loan to value)

Issues with NPI

- Does not report after fee returns
- Does not report cash yields
- Unlevered

Issues with REITs

- Represent 7% of portfolio
- Expected to be phased out over next 3 years

V. Implementation

Organization

- Modify organizational structure by function (New Investments, Portfolio Management, Portfolio Analytics Research and Operations)
- Categorize the portfolio into New Portfolio and Legacy portfolio (some high quality stabilized Legacy assets may be transitioned to New Portfolio)
- New Portfolio can be implemented with 15 to 30 managers

Legacy Portfolio

- To be “optimized” not “liquidated” over five to seven years

REIT Portfolio

- Transitioned over three-year period as portfolio moves to targeted allocation

Base Portfolio

- Structure to be developed over first Quarter
- Full funding expected to take five to seven years
- Additional partners need to be sourced

Domestic Tactical

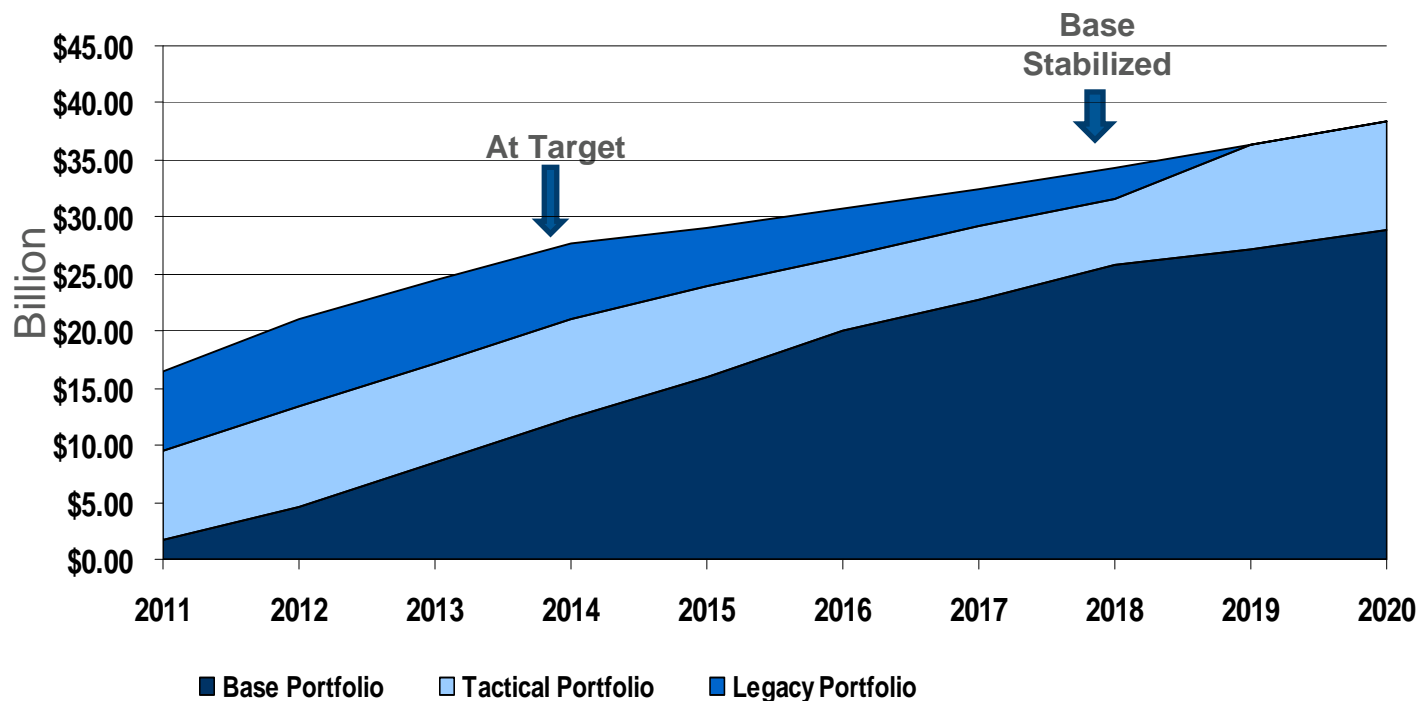
- Initial partners and structures in place

International Tactical

- \$1 billion invested
- Additional partners need to be sourced

Implementation

- Base Portfolio expected to grow
- Tactical Portfolios will decrease as a percentage of the portfolio; however, with active buying and selling
- Legacy Portfolio will liquidate



Appendix A

Markets

Market Trends

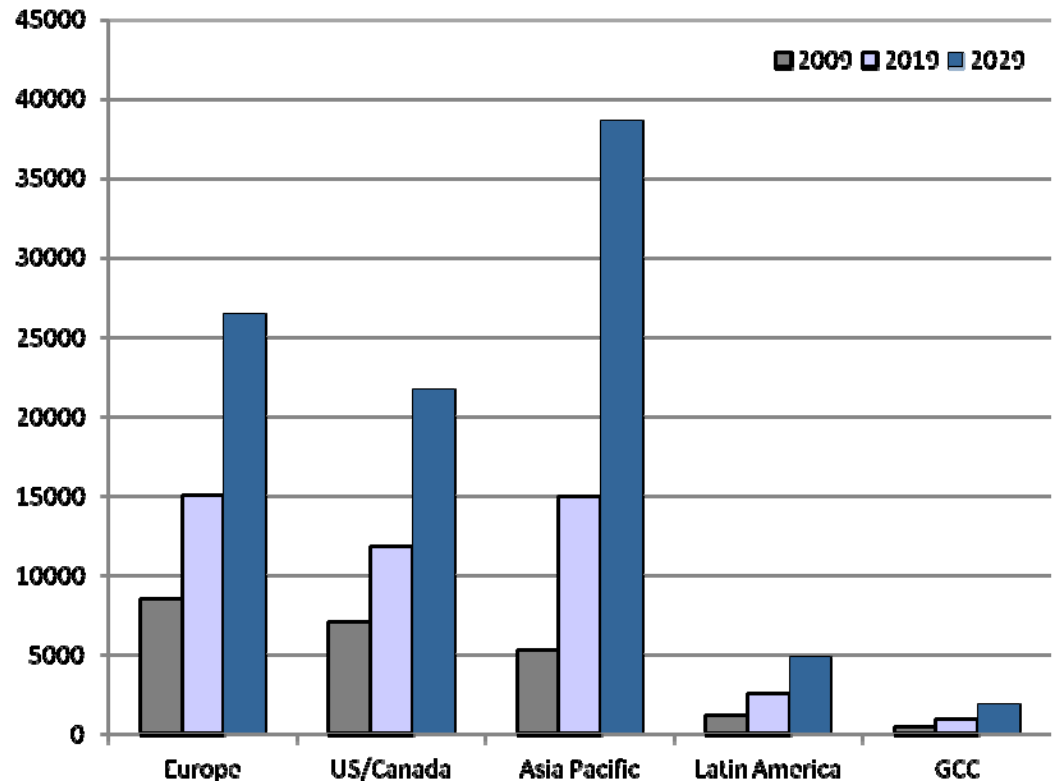
- Growth of competitive sources of capital
 - Growth of cross border investing has increased five-fold since 1990 to \$1 trillion per year
 - CalPERS is the 12th largest real estate investor globally
 - Capital moving quickly to capitalize on opportunities
- Dramatic growth of global middle class
 - Global middle class growing by 70 million people per year
 - Shift in spending power towards middle-income economies
 - What will the impact be on demand for resources?
- Low population and economic growth in Developed Countries
 - Japan and Germany currently have negative population growth
 - The United States is exception maintaining a 1% population growth rate
- Forecasted Shift in the Regional Distribution of Real Estate
 - Asia/Pacific commercial real estate market is expected to triple in next decade

Sources: Goldman Sachs, PPR

Market Trends

- The global universe of commercial real estate is estimated at \$23 trillion.
- Developed countries currently account for 81% of the universe, with this proportion decreasing to 66% by 2019.
- The United States has a investable universe of \$6.4 trillion of real estate representing 29% of the global total. By 2019 the United States proportion of the total will decrease to 21%.

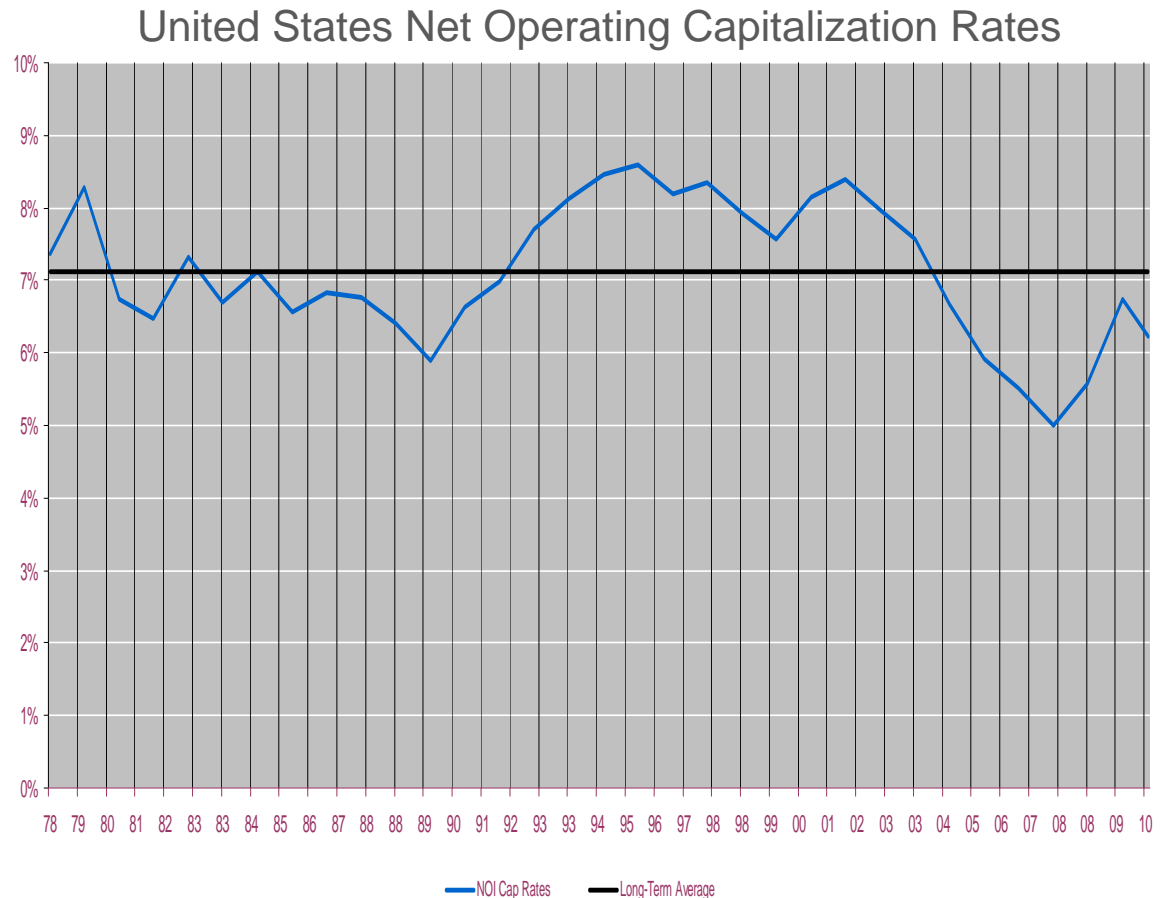
Shift in the Regional
Distribution of Real Estate
Estimated Size of Real Estate (US\$ billions)



Source: Prudential Real Estate

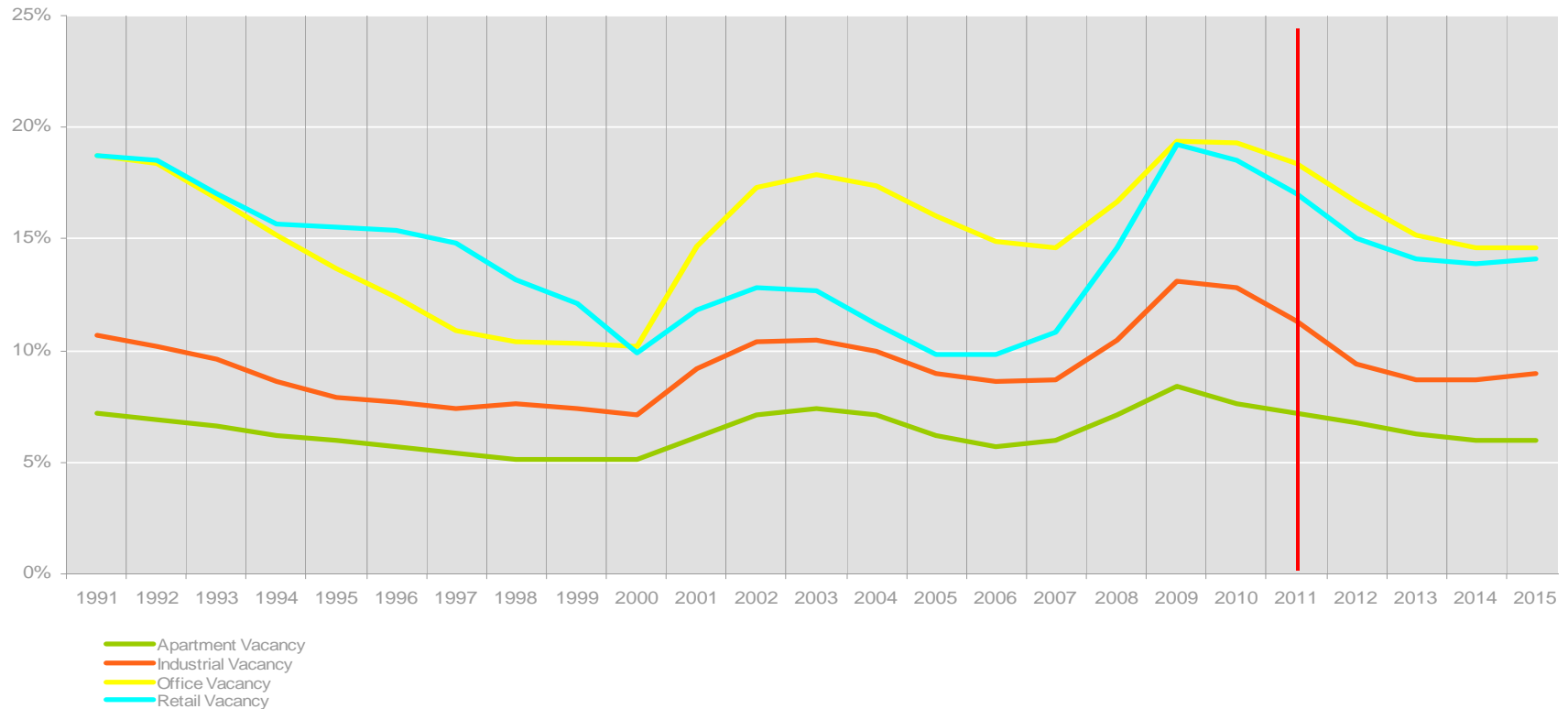
Market Trends – United States

- US real estate markets are in slow recovery.
- Net Operating Capitalization rates (NOI Cap Rates) are in the 6 to 7% range.
- Assets values have regained 4% after a 32% cumulative drop in 2008/2009.
- High vacancy rates due to weak demand. Recovery in space market may take 5 years.



Market Trends – United States

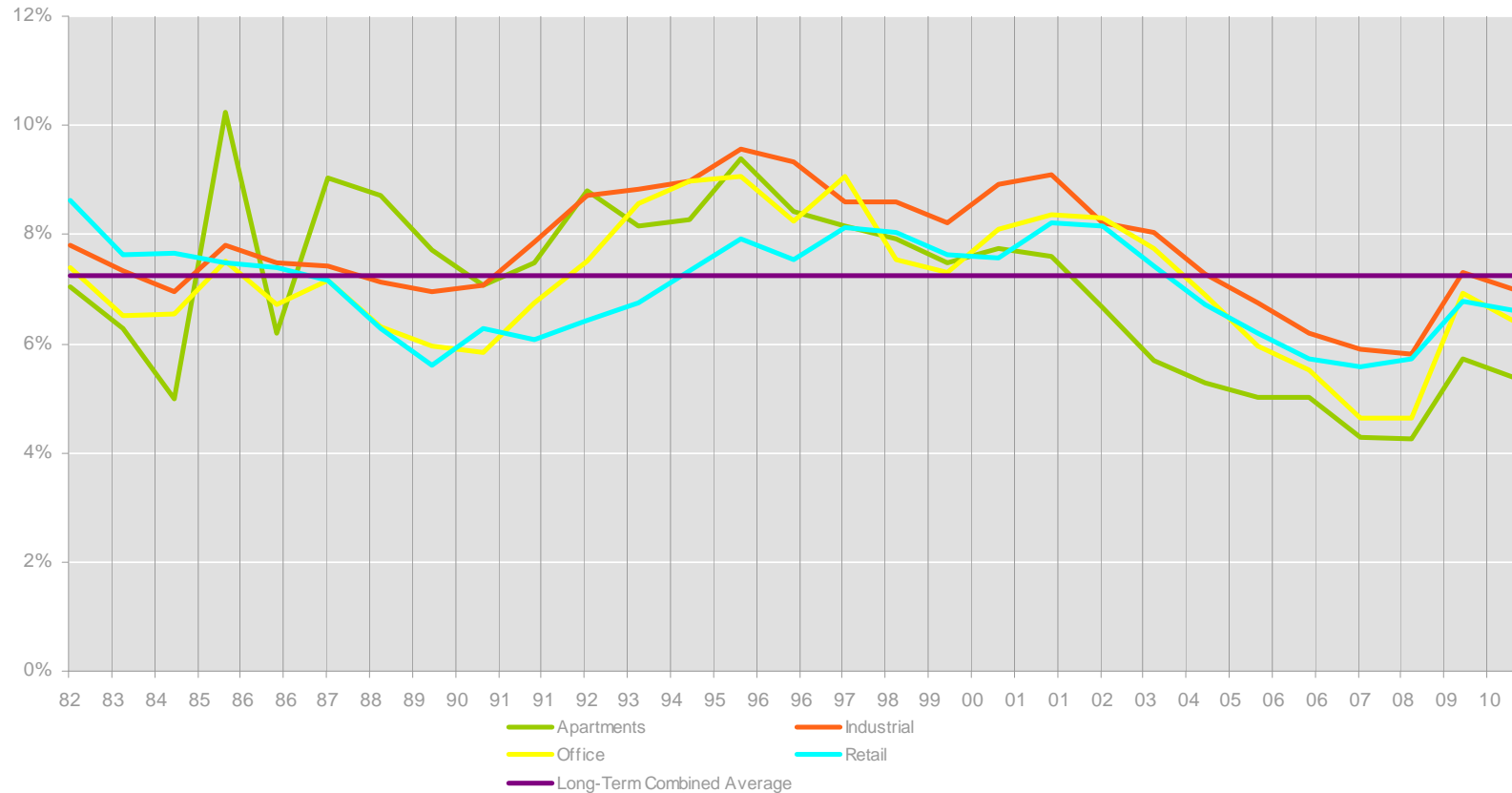
Vacancy Rates



Source: PPR

Market Trends – United States

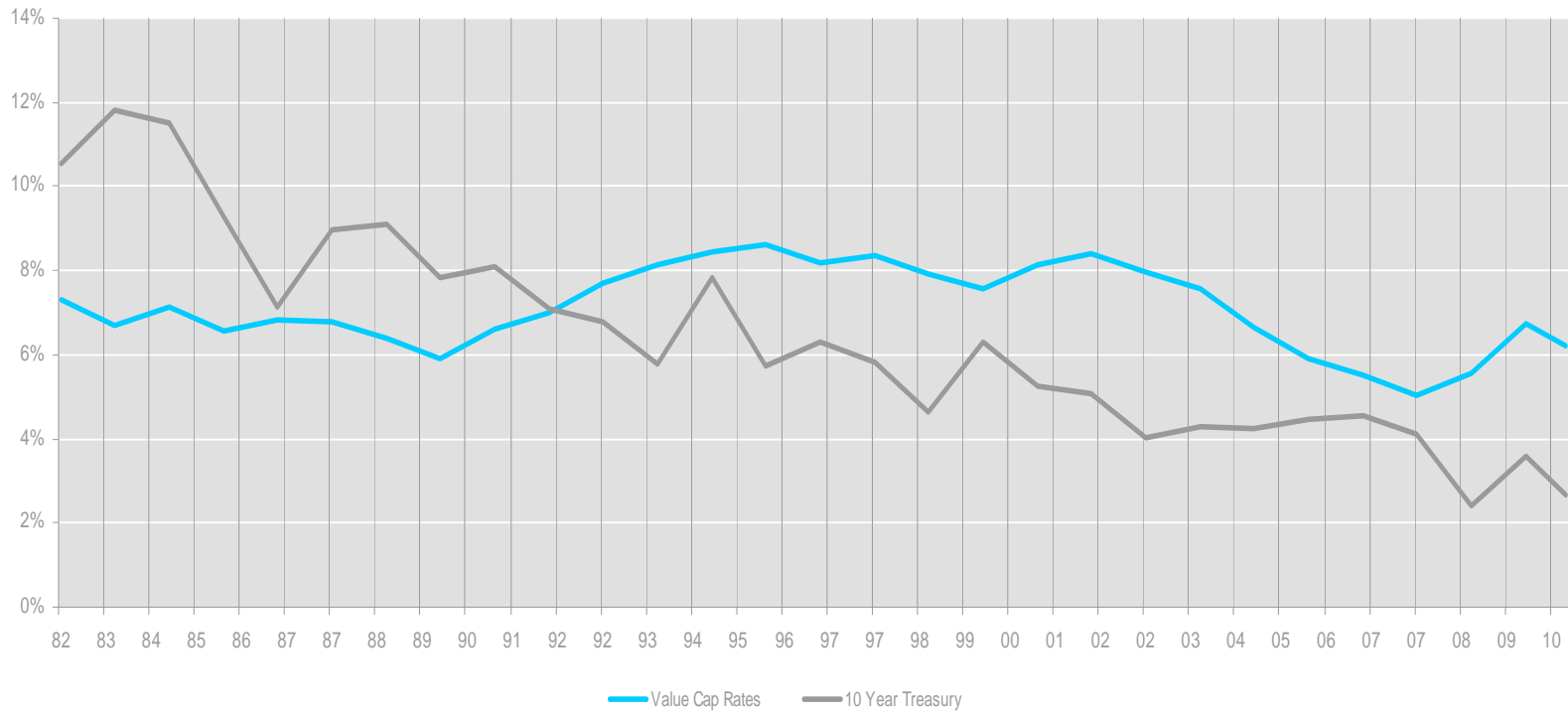
NOI Cap Rates



Source: PPR

Market Trends – United States

US NOI Cap Rates vs. 10 Year Treasury



Source: NCREIF, US Department of the Treasury

Appendix B

Historical Returns

Historical Returns

Four Quadrants

- The United States Investable Universe includes Private Equity, Public Equity, Private Debt, and Public Debt.
- Private Equity has the lowest correlation to Equities.
- Investment in Public Equities requires evaluation by the Investment Office to determine the role in the Total Fund.
- Private Real Estate debt is generally under the purview of Fixed Income.

1982 to 2009

	Return	Risk	Return Per Unit of Risk	Correlation to Equities
Private RE Equity	7.5%	7.9%	0.9	.28
Public RE Equity	11.6%	19.3%	0.6	.55
Private RE Debt	9.8%	7.6%	1.3	.40
Public RE Debt	2.7%	9.1%	0.3	.41
All Real Estate	8.8%	5.7%	1.6	.35
Bonds	9.0%	7.1%	1.3	.10

Source: Property & Portfolio Research

Historical Returns

Historical and Expected Returns

	Before Fee Return	After Fee Return	Standard Deviation
Benchmarks – Since 1982			
NPI	7.5%	n/a	4.5%
ODCE	6.4%	5.4%	5.7%
CalPERS – Since Inception (1982)			
	7.8%	6.5%	10.0%
CalPERS – 10 Year Expected Returns – ALM Workshop			
	8.5%	7.0%	14.0%

Source: NCREIF, ODCE, CalPERS ALM project

Historical Returns

	3 yr	5 yr	10 yr	20 yr	SI – 1998	SI – 1982
RE Portfolio	-27.0%	-10.6%	1.9%	4.5%	3.9%	6.5%
RE Core	-21.1%	-6.2%	4.8%	5.3%	6.3%	7.2%
Strategic Partners	-5.9%	6.8%	12.4%	N/A	12.9%	N/A
Emerging Markets	-0.9%	7.4%	N/A	N/A	N/A	N/A

Notes:

(1) Historical data is through 6/30/2010 and reflects after fee net return.

(2) RE core includes core retail, core office, core industrial, and core apartment; it excludes REITS.

(3) 1982 is the inception year for the CalPERS Real Estate portfolio.

Appendix C

Organization

Current Organization

Priority of prior three years has been addressing restructuring issues

- Assessing partners' performance
- Transferring assets
- Deleveraging the portfolio
- Revising Systems, Policy and Controls

Issues

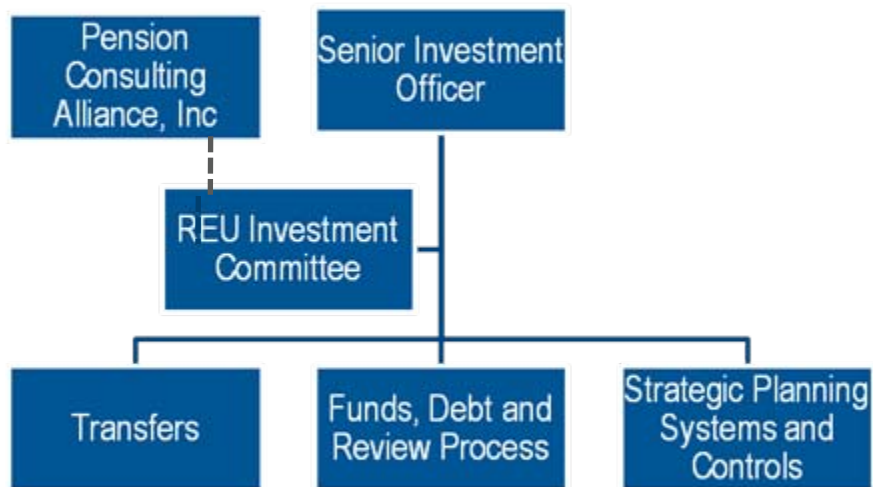
- Need to separate acquisition function from monitoring function
- Need to free up a portion of staff from demands of Legacy Portfolio to start developing New Portfolio
- Investment Officers should rotate between the groups as part of career development

Recommendation

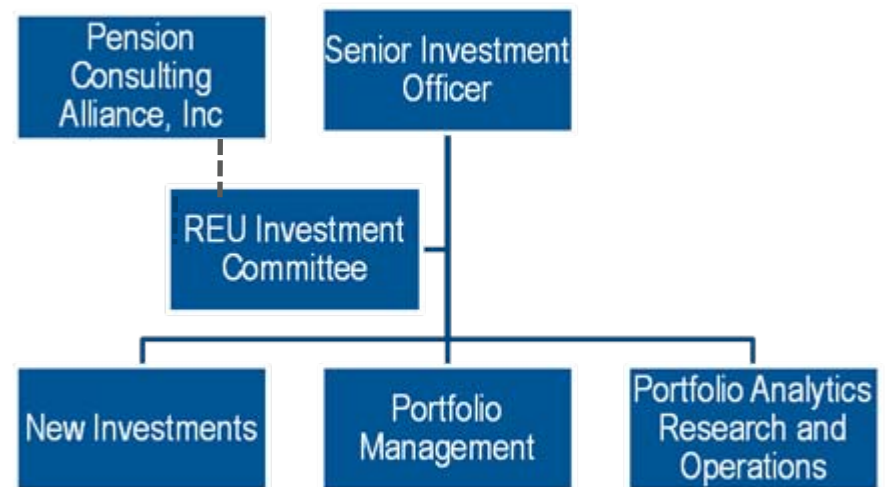
- Organize group by function with three groups reporting to SIO

Organization

Current



Proposed



Organization

New Investments

- Strategic Planning
- Sourcing and Executing New Relationships
- Large Transactions

Portfolio Management

- Monitoring of New and Legacy Portfolios
- Evaluation of Managers
- Ranking of Assets

Portfolio Analytics Research and Operations

- Annual Portfolio Allocation
- Governance and Compliance
- Board Reporting
- Data Systems
- Research
- Analytics